

## ABSTRACT OF THE DISCLOSURE

An image encoding apparatus includes a converter 1 for receiving an image signal, and for converting the image signal of individual blocks to DC components and AC components by  
5 orthogonal transformation of the individual blocks of an image frame; a predicted reference value generator 2 for receiving the image signal, and for generating a predicted reference value of each image frame from DC components resulting from the orthogonal transformation of left-edge blocks of the image frame;  
10 and a differential unit 3 for obtaining difference values between the DC components output from the converter 1 and the predicted reference value generated by the predicted reference value generator 2. The image encoding apparatus outputs a bit stream by quantizing and variable-length encoding the AC components  
15 and difference values obtained by the differential unit 3, and by quantizing and variable-length encoding the predicted reference value to be added to a header.